UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 Sixth Avenue, Suite 900
Seattle, WA 98101-3140

OFFICE OF
COMPLIANCE AND ENFORCEMENT

Reply to: OCE-084

Jennie Goldberg
Superfund Program Manager
Seattle City Light
700 Fifth Avenue, Suite 3200
PO Box 34023
Seattle, WA 98124-4023

Re: Toxic Substances Control Act (TSCA) Risk-Based Disposal Approval for the Georgetown Steam Plant Interim Action Work Plan

Dear Ms. Goldberg:

This letter constitutes approval under the authority of 40 Code of Federal Regulations (C.F.R.) § 761.61(c) for the cleanup and verification sampling of certain polychlorinated biphenyl (PCB) remediation waste at Seattle City Light Georgetown Steam Plant (GSP) facility in Seattle, Washington. More specifically, this approval authorizes Seattle City Light (SCL) to perform interim remedial actions to remove soils contaminated by PCBs with as-found concentrations greater than or equal to 50 milligrams per kilogram (mg/kg), and to perform verification sampling following removal of contaminated material as documented in the Georgetown Steam Plant Interim Action Work Plan, Reference 1 in Enclosure 1 to this approval. This approval is subject to the conditions below. The rationale of the United States Environmental Protection Agency (EPA) for establishing each of these conditions is contained in the Statement of Basis appearing as Enclosure 2 to this letter.

Background

The Washington State Department of Ecology (Ecology) and the U.S. Environmental Protection Agency, Region 10 (EPA) are working to clean up contaminated sediments and control sources of recontamination in the Lower Duwamish Waterway (LDW) near Seattle, Washington. The Lower Duwamish Waterway site is approximately 5.5 mile portion of the Lower Duwamish River which flows into Elliott Bay. The sediments along the river contain a wide range of contaminants due to years of industrial activity and run off from residential areas. These contaminants include PCBs (polychlorinated biphenyls), PAHs (polycyclic aromatic hydrocarbons), chlorinated dioxins & furans, metals, and phthalates.

The EPA is leading the sediment contamination investigation for the LDW site with support from Ecology. In 2001, EPA added the LDW site to the Superfund National Priorities List; Ecology added the site to the Washington Hazardous Sites List in 2002. The respective roles and responsibilities of the EPA and Ecology have been documented in "Lower Duwamish Waterway Site Memorandum of Understanding between the United States Environmental Protection

Agency and the Washington State Department of Ecology," dated April, 2004.

A number of sites and facilities in the vicinity of the LDW have been identified as sources contributing to sediment contamination. One area that has been identified as a source of polychlorinated biphenyl (PCB) contamination is soils near and along the fence line separating the Georgetown Steam Plant, and the area North Boeing Field located within the Boeing Company Propulsion Engineering Labs (PEL) area (See Figure 1-1 of Reference 1). The Georgetown Steam Plant is owned by the City of Seattle, while North Boeing Field is owned by King County and leased to the Boeing Company. PCBs from this source area are believed to have contaminated the Slip 4 area of the LDW through storm water discharges (See Section 1 of Reference 1).

This approval, along with a parallel approval relating to similar work being performed by the Boeing Company on property adjacent to the Georgetown Steam Plant, is an interim action that will precede a full remedial investigation and feasibility study process planned for the overall site, which includes the GSP and NBF properties. EPA expects this approval to be the first of a series of phased approvals providing authorization for those aspects of the planned source control work subject to the requirements of 40 C.F.R. Part 761.

EPA's Approval

This written decision for a risk-based method for cleanup and verification sampling of PCB remediation waste is based on SCL's application for a risk-based disposal approval consisting of the documentation identified in Enclosure 1. All sections of the RBDA application referenced in this approval are incorporated by reference. In granting this approval, EPA finds that the proposed cleanup, verification and on-site storage for disposal of PCB remediation waste, subject to the conditions below, will not pose an unreasonable risk of injury to health or the environment. SCL shall ensure that activities conducted pursuant to this approval are in full compliance with conditions of the approval. The conditions of this approval are enforceable under TSCA and implementing regulations at 40 C.F.R. § 761.61(c). Any actions by SCL which violate the terms and conditions of this letter may result in administrative, civil, or criminal enforcement by EPA in accordance with Section 16 of TSCA, 15 USC § 2615.

Conditions

1. SCL is authorized to perform cleanup, verification sampling, and temporary on-site stockpile storage of PCB remediation waste with PCB concentrations greater than or equal to 50 mg/kg (parts per million) as documented in Reference 1.
2. This approval will remain in effect for a period of one year following the most recent approval or modification signature date, or the duration of the authorized activities, whichever is shorter. SCL may request an extension to this authorization by providing a written request to EPA according to Condition **XXX**.
3. In conducting work authorized by this approval, SCL shall ensure that effective controls are in place to prevent or minimize dispersal of soil other material contaminated with PCBs. Such measures may include, but are not limited to, use of exclusion and decontamination

zones around work areas, and the source control activities documented in Section 3.6.1.1 of Reference 1. If water is used for dust control purposes, the amount of water shall be limited to that necessary for effective dust control to minimize the potential for the spread of contamination. All water used for decontamination and vehicle/truck washes shall be managed in the wastewater treatment system documented in Section 3.4 of Reference 1.

4. SCL shall ensure that all on-site storage of PCB remediation waste in temporary stockpiles is conducted in a manner that prevents, consistent with best management and construction practices, migration or dispersal of PCBs. Gravity dewatering of PCB remediation waste must be carried out in tanks or containers.

5. SCL shall ensure that any contractor conducting work authorized by this approval is provided a copy of the approval prior to the start of the authorized work. SCL shall ensure that all work subject to this approval is conducted according to the conditions of this approval.

6. SCL shall ensure that the Health and Safety Plan (HASP) documents appropriate training and personal protective equipment required for all personnel that may be exposed to PCBs during work subject to this approval. SCL will provide the EPA a copy of this health and safety plan according to Condition XXX no later than two weeks following receipt of this approval.

7. Within ten (10) days following receipt of any written approval from the Washington State Department of Ecology pursuant to Agreed Order DE 5685 for any additional or modified work at or within the physical boundaries of the Georgetown Steam Plant facility that is subject in whole or part to the requirements of 40 C.F.R. 761, SCL will provide written notice according to Condition XXX of the additional or modified work requirements and of Ecology's written approval.

8. Nothing in this approval relieves SCL of any obligation to comply with other rules and regulations applicable to the activities subject to this approval.

9. If at any time before, during, or after cleanup and verification sampling of PCB remediation waste pursuant to this approval, SCL possesses or is otherwise made aware of any data or information (including but not limited to site conditions that differ from those presented in the application) that activities approved herein may pose an unreasonable risk of injury to health or the environment, SCL must report such data or information via facsimile or e-mail to EPA according to Condition **XXX** within five working days, and in writing to the Regional Administrator within 30 calendar days of first possessing or being made aware of such data or information. SCL shall also report in the same manner, new or different information related to a condition or any element of the approved activities if the information is relevant to this approval. EPA may direct SCL to take such actions it finds necessary to ensure the approved activities do not pose an unreasonable risk of injury to health or the environment. SCL shall follow such direction until written approval is obtained from the EPA that finds the condition(s) requiring such direction no longer poses an unreasonable risk of injury to health or the environment.

10. The EPA reserves the right to modify or revoke this approval based on information provided pursuant to Condition 12, or any other information available to the EPA that provides a basis to conclude that activities covered by this approval pose an unreasonable risk of injury to

health or the environment. SCL may request modification of this approval by providing written notice according to Condition XXX. If the EPA agrees with a request for modification, the EPA will provide written approval to SCL. Prior to obtaining written approval of a modification request, SCL shall comply with the existing approval conditions.

11. Submissions required by this approval shall be provided to EPA as follows:

EPA: Edward J. Kowalski, Director
Office of Compliance and Enforcement
EPA Region 10
1200 6th Ave., Suite 900, MS OCE-164
Seattle, Washington 98101
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w/copies to Dave Bartus
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1200 6th Avenue, Suite 900, MS AWT-122
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Should you have any questions or comments, please contact Dave Bartus at (206) 553-2804, or Bartus.dave@epa.gov.

Sincerely,

Edward J. Kowalski, Director
Office of Compliance and Enforcement

Enclosures (2)

cc: Mark Edens, Ecology Northwest Regional Office
Kris Flint, EPA
Karen Keeley, EPA

Enclosure 1
References

1) Work Plan, "Georgetown Steam Plant, Interim Action Work Plan," prepared for Seattle City Light, dated June 2, 2011
2) Letter, "North Boeing Field/Georgetown Steam Plant Agreed Order No. DE 5685, Georgetown Steam Plant Fence Line Interim Action – Approval of Screening Levels and Interim Action Work Plan," Mark Edens, Washington State Department of Ecology to Jennie Goldberg, Seattle City Light, dated June 7, 2011.
3) Reference to the GSP 761.61(a) notice.
4) MTCA/TSCA integration e-mail.
5) Work Plan, "Final Draft, Interim Action Work Plan, 2011 Fenceline Area Soil Excavation, North Boeing Field, Seattle, Washington," Landau Associates, dated June 2, 2011.

Enclosure 2
Statement of Basis

Background

The Washington State Department of Ecology (Ecology) and the U.S. Environmental Protection Agency, Region 10 (EPA) are working to clean up contaminated sediments and control sources of recontamination in the Lower Duwamish Waterway (LDW) near Seattle, Washington. The Lower Duwamish Waterway site is approximately 5.5 mile portion of the Lower Duwamish River which flows into Elliott Bay. The sediments along the river contain a wide range of contaminants due to years of industrial activity and run off from residential areas. These contaminants include PCBs (polychlorinated biphenyls), PAHs (polycyclic aromatic hydrocarbons), chlorinated dioxins & furans, metals, and phthalates.

The EPA is leading the sediment contamination investigation for the LDW site with support from Ecology. In 2001, EPA added the LDW site to the Superfund National Priorities List; Ecology added the site to the Washington Hazardous Sites List in 2002. The respective roles and responsibilities of the EPA and Ecology have been documented in "Lower Duwamish Waterway Site Memorandum of Understanding between the United States Environmental Protection Agency and the Washington State Department of Ecology," dated April, 2004.

A number of sites and facilities in the vicinity of the LDW have been identified as sources contributing to sediment contamination. One area that has been identified as a source of polychlorinated biphenyl (PCB) contamination is soils near and along the fence line separating the Georgetown Steam Plant, and the area North Boeing Field located within the Boeing Company Propulsion Engineering Labs (PEL) area (See Figure 1-1 of Reference 1). The Georgetown Steam Plant is owned by the City of Seattle, while North Boeing Field is owned by King County and leased to the Boeing Company. PCBs from this source area are believed to have contaminated the Slip 4 area of the LDW through storm water discharges (See Section 1 of Reference 1).

The Boeing Company, King County, and the City of Seattle (the Parties), entered into an Agreed Order (DE 5685) with the Department of Ecology to conduct an investigation at this site. This Agreed Order was established pursuant to the state Model Toxics Control Act (MTCA), 70.105D Revised Code of Washington. Under the Agreed Order, the PLPS are required to complete a Remedial Investigation and Feasibility Study (RI/FS) at the site. The purpose of the Remedial Investigation is to define the nature and extent of contamination at the site and to determine if it is contributing to the sediment contamination in the Lower Duwamish Waterway. The Feasibility Study will use the results of the Remedial Investigation to evaluate and choose measures to cleanup contamination and prevent recontamination of the LDW sediments. Prior to completion of the RI/FS, Ecology and the Parties agreed to conduct certain interim measures to, among other objectives, reduce the quantity of contaminants (including PCBs) that may be transported via storm water flow into Slip 4 within the LDW). The work plan provided to, and approved by Ecology, in Reference 1 documents the specific source control work to be conducted. A similar work plan, entitled "Interim Action Work Plan, 2011 Fenceline Area Soil Excavation," has been provided to and approved by Ecology regarding properties adjacent to the

GSP owned by King County and leased by the Boeing Company. EPA is addressing federal approval of NBF Fenceline Area work under the Toxic Substances Control Act through a separate, but parallel, risk-based disposal approval.

Agency and Program Integration Issues

Prior to Ecology approval of the GSP interim action work plan, SCL had provided the EPA with a notice of self-implementing cleanup pursuant to the requirements of 40 C.F.R. 761.61(a) for cleanup of PCBs at the GSP facility (Reference 3). The Boeing Company also provided a similar submission to the EPA regarding cleanup of PCBs at the North Boeing Field fenceline area (See the EPA's separate risk-based disposal approval of the 2011 Fenceline Area Soil Excavation North Boeing Field work plan). EPA's review of these two separate, but clearly related, notices of self-implementing cleanup identified several key issues. These issues include the applicability of self-implementing cleanups to these facilities, a need to comprehensively address all PCBs subject to the requirements of 40 C.F.R. 761 in the context of a broader cleanup and/or source control project, the need to ensure that the requirements of separate, but related work plans are appropriately integrated, and the potential inefficient duplication of efforts between EPA and Ecology. These issues, and their resolution, are discussed in the following paragraphs.

Although TSCA implementing regulations at 40 C.F.R. 761.61(a) explicitly allows for self-implementing cleanup of PCBs, this self-implementing authority is designed for, and typically applied to, a general, moderately-sized site where there should be low residual impact from remedial activities. The self-implementing procedure is rather proscriptive, and may be less practical for larger or environmentally diverse sites. The Lower Duwamish Waterway uplands source control areas, including the GTF and NBF facilities, are anything but a general, moderately-sized site, and source control/cleanup requirements are generally more stringent than the proscriptive cleanup levels for self-implementing PCB cleanups. Also, the self-implementing administrative procedure is not very flexible, making it more difficult to use a phased approach to work (as is typical at complex sites) or to establish characterization, cleanup or verification requirements that differ from those in the TSCA self-implementing cleanup requirements but are better suited to full integration with work under different programs/authorities and that achieve the level of protectiveness necessary for source control objectives. Therefore, the EPA has determined that any authorizations necessary under TSCA PCB regulations be considered under the risk-based disposal authority of 40 C.F.R. 761.61(c) rather than under self-implementing cleanup requirements of 40 C.F.R. 761.61(a).

In general, cleanup and source control work at the GTF and NBF sites, at which PCBs subject to the PCB remediation waste requirements of 40 C.F.R. 761.61 are found, must address constituents, sometimes including PCBs, that are not subject to TSCA requirements[1]. Therefore, effective cleanup should be structured around requirements developed through the more

[1] Some spills/releases of PCBs do not meet the definition of PCB remediation waste at 40 C.F.R. 761.3, but never the less are present at concentrations above MTCA or RCRA cleanup levels, or may need cleanup to meet source control goals. For example, PCBs up to 49 ppm from spills or releases prior to April 18, 1978 do not satisfy the definition of PCB remediation waste and are not subject to 40 C.F.R. 761.61 requirements, but may be at concentrations well above those necessary for effective source control.

comprehensive cleanup process (including consideration of site characterization, risk evaluation/risk assessment, remedial alternatives development and selection, institutional control/land use controls, etc.). Even when there is overlap between MTCA and TSCA PCB cleanup, it makes more sense to rely on the existing, more comprehensive cleanup programs than to duplicate the same work under TSCA. Therefore, the EPA has concluded that all work pertaining to PCB cleanup should be initially defined by and have at least preliminary review and endorsement by currently assigned lead agencies. (See http://www.ecy.wa.gov/programs/tcp/sites/lower_duwamish/lower_duwamish_hp.html for a summary of source control areas and associated lead agency assignments). Where such work is subject to the TSCA requirements applicable to PCB Remediation Waste (as defined in 40 C.F.R. 761.3), the EPA will require the facility owner /operator to provide the EPA a request for a risk-based disposal approval based on the work requirements reviewed and approved by the lead regulatory agency. Under this model, the assigned lead agency will have principle technical responsibility for site characterization, establishment of cleanup levels, evaluation of remedial or cleanup options, and remedy implementation for all contaminants of concern, including PCBs.

The Washington State Department of Ecology and the EPA have jointly developed documentation of a set of core principles and essential elements that more completely define a model for integration of the respective MTCA and TSCA roles and responsibilities of Ecology and the EPA in a manner that addresses the issues outlined above. As lead regulatory agency for LDW source control work, Ecology provided this documentation to the Parties in the form of an e-mail (Reference 4). Although this model is initially being applied to the GSP and NBF Fenceline Area work, EPA and Ecology expect to apply the model more broadly to other LDW source control projects in the future. SCL's request for a risk-based disposal approval, along with the parallel request for the NBF Fenceline Area RBDA, are the first two LDW source control projects to be evaluated under this model.

EPA's Evaluation of Seattle City Light's Risk-Based Disposal Approval Application

In evaluating SCL's request for a risk-based disposal approval, EPA has considered the following issues:

- Relationship of this work to overarching cleanup requirements
- Adequacy of site characterization for cleanup purposes
- Scope of the proposed interim actions
- On-site management of PCB remediation waste
- Disposal of PCB remediation waste

Relationship of This Work to Overarching Cleanup Requirements

Most complex cleanup projects, including the LDW sediment cleanup and associated source control work, are approached on a phased or iterative approach, with early phases focused on investigation, characterization, and where appropriate, interim measures. Subsequent phases focus on development, implementation and monitoring of final remedial measures. This general model is being applied to the LDW sediment cleanup by EPA through the Comprehensive

Environmental Response, Compensation and Liability Act (CERCLA) process, and to uplands source control work by Ecology through the Model Toxics Control Act process.

The EPA's review of the SCL's application for a risk-based disposal approval for the GSP interim action work plan is based on the EPA's determination that the existing Ecology processes are fully adequate to establish overall cleanup objectives, schedules and priorities, and work requirements. Based on this determination, the EPA is not separately establishing overall cleanup objectives or schedules in this approval. EPA retains the authority to establish such requirements, however, in this or any subsequent modification of it or any separate approval to ensure that cleanup of PCBs is conducted in full compliance with the requirements of 40 C.F.R. Part 761, and in a manner that ensures no unreasonable risk of injury to health or the environment. The EPA expects to continue to work closely with the Washington State Department of Ecology, the lead regulatory agency for LDW source control work, to help ensure full compliance with TSCA requirements, and effective integration of MTCA and TSCA requirements.

Adequacy of Site Characterization for Cleanup Purposes

SCL and the Boeing Company have conducted several field investigations that help define the nature and extent of PCB contamination associated with the GSP and NBF properties. These various studies are identified in the interim action work plans provided to EPA by SCL and Boeing as the basis for the respective applications for risk-based disposal approvals (See References 1 and 5. The purpose of these sampling exercises has been to document the location and extent of soils with PCBs exceeding 50 ppm to facilitate the division of excavated soils into different stockpiles for disposal, and to define the initial scope of excavation for PCB-containing soils. These sampling results are adequate for establishing the scope of the proposed interim actions. EPA notes that the GSP interim action work plan states in Section 4.2.1 that additional excavation may be performed if samples used to confirm that the interim action levels have been achieved are above the proposed interim action levels.

One of the expectations established in the TSCA/MTCA integration framework documented in Reference 4 is that all spills or releases of PCBs meeting the definition of "PCB Remediation Waste" at 40 CFR 761.3 must be addressed. The GSP Interim Action Work Plan proposes to address soils containing PCBs less 50 ppm in accordance with MTCA, not TSCA requirements. However, the Work Plan does not include any discussion of the date of release and the source concentration of releases associated with PCBs currently at concentrations less than 50 ppm. Therefore, the Work Plan does not provide a basis for concluding that PCBs with as-found concentrations are not PCB remediation waste. Ordinarily, absent such information, the EPA typically makes a conservative assumption that such PCBs do meet the definition of PCB remediation waste, and are subject to the requirements of 40 C.F.R. 761.61.

The corresponding Boeing Fenceline Interim Action work plan (Reference 5), however, does include a discussion of possible sources, dates, and source concentration of PCBs found in the fenceline area. In particular, Section 3.2 of the Boeing Fenceline Interim Action work plan states:

> "Based on these investigations, releases to soil in the fenceline area were determined to have occurred prior to April 1978, the date specified in the TSCA definition of a PCB remediation waste (40 CFR 761.3). Therefore, soil with concentrations of PCBs less than 50 mg/kg is not considered PCB remediation waste and the cleanup and disposal of this soil will be conducted in compliance with MTCA requirements and as an interim action in accordance with the NBF/GTSP Agreed Order."

While neither the GSP nor the Boeing Fenceline Interim Action work plans provide any documentation that the source of PCBs within the GSP project area and those within the NBF project area are from a common source, the location of the PCBs principally in the low-lying area along the fenceline area and the historic storm water flow paths documented in the two interim action work plans suggest that a common source of PCBs is a reasonable assumption. Therefore, EPA accepts the quoted text as applicable to characterization of PCBs within the GSP project area with regard to the definition of PCBs at 40 C.F.R. § 761.3. Therefore, only soils with PCBs at as-found concentrations greater than 50 ppm are subject to the requirements of this authorization. The EPA notes that even if soils with PCBs at as-found concentrations less than 50 ppm were to meet the definition of "PCB remediation waste" at 40 C.F.R. § 761.3, the EPA would likely establish the same substantive requirements as applied to such soils under MTCA authority in the GSP Interim Action work plan.

Scope of the Proposed Interim Actions

Since the proposed interim actions are focused on PCBs that could migrate to the LDW Slip 4 via storm water, PCBs that are known to be present in groundwater at or near the Low-Lying Area of the GSP facility are not considered as part of this interim action. Similarly, some PCBs which may be present in soils below the water table will not be addressed though this interim action, and will be considered through the RI/FS and final remedy selection process.

On-Site Management of PCB Remediation Waste

The GSP Interim Action work plan notes that soils with total PCB concentrations equal to or greater than 50 mg/kg (approximately ppm) will be segregated and placed in separate stockpiles, or direct loaded to designated trucks for disposal. The work plan also notes that there is a small area where soils with PCBs greater than 50 mg/kg extend into the saturated soil zone. Therefore, there is a potential for such soils to contain drainable groundwater that has been in contact with PCBs at concentrations greater than 50 ppm. The GSP Interim Action work plan does not document any particular management standards or practices associated with either stockpiling of PCB remediation waste or gravity dewatering of PCB remediation waste. Therefore, EPA is establishing performance-based standards for these practices as conditions of this approval.

Disposal of PCB Remediation Waste

The GSP Interim Action work plan states that PCB remediation waste generated pursuant to this authorization will be disposed of in a TSCA-waste landfill such as the Chemical Waste RCRA/TSCA Subtitle C Facility near Arlington, OR. Although the scope of this approval does

not extend to disposal of PCB remediation waste, the proposed method of disposal is compliant with the requirements of 40 C.F.R. § 761.61(a)(5)(i)(B)(*iii*).

The GSP Interim Action work plan documents that wastewater from excavation dewatering and gravity dewatering of stockpiled soils will be collected, treated and discharged to the sanitary sewer through a treatment system anticipated to consist of an oil/water separator, a settling tank, a particulate filter to reduce suspended solids, and a granular activated carbon filter. Discharge of water from this treatment system will be regulated by the King County Industrial Waste (KCIW) program in compliance with the requirements of 40 C.F.R. Part 403. To the extent that wastewater contains, or has been in contact with, PCBs meeting the definition of PCB remediation waste, such wastewaters are subject to the decontamination standards of 40 C.F.R. § 761.79(b). The proposed methods of decontamination are within the scope of methods authorized by 40 C.F.R. § 761.79(b), so separate authorization is not necessary under this approval. Decontamination to standards established by the KCIW program in compliance with 40 C.F.R Part 403 is an acceptable means of compliance with the requirements of 40 C.F.R. § 761.79(b)(1)(ii), since 40 C.F.R Part 403 implements the requirements (among others) of Parts 307 and 402(b), of the Federal Water Pollution Control Act as amended by the Clean Water Act of 1977 (Pub. L. 95–217).

Discussion of Conditions

1. Boeing is authorized to perform cleanup, verification, and on-site storage for disposal of PCB remediation waste associated with features with PCB concentrations greater than or equal to 50 mg/kg (parts per million) as documented in Section 2.0 of Reference 7. Boeing will conduct this work as documented in Boeing's RBDA application (Reference 3) and the "Revised Work Plan, TSCA Material Management, Plant 2 Demolition Area, Seattle, Washington" (Reference 7).

This condition establishes overall authorization for the proposed cleanup and storage for disposal of PCB remediation waste with as-found concentrations greater than 50 ppm, and defines the scope of the authorized activities. This condition is similar to that in the original RBDA approval, but includes authorization for an additional feature in Area 72.

EPA notes that Boeing did not explicitly request authorization for on-site storage for disposal of PCB remediation waste in its RBDA application. To provide Boeing with reasonable flexibility in implementing requirements of this approval, and to accommodate unforeseen circumstances which may result in PCB remediation waste remaining on-site longer than anticipated, EPA is including explicit authorization for storage for disposal, for a time period up to the duration of this approval as stated in Condition 4, in this condition.

2. Boeing is granted interim authorization to cleanup and sample concrete with as-found PCB concentrations less than 50 mg/kg as documented in Boeing's February 7, 2011 letter (Reference 6), and use of Plant 2 tunnels as a unit for disposal of such concrete following crushing. The scope of this interim authorization includes bullets 1-6 associated with the plan for demolition and cleanup of the Plant 2 foundation documented in Reference 6. Boeing must conduct all sampling and analysis associated with crushed concrete according to a written sampling and analysis plan that specifies all field and analytical laboratory quality

assurance/quality control that will be used to document the quality of the resulting analytical data. Boeing must keep records that include the written sampling and analysis plan, documentation of all sampling and analysis conducted according to the sampling and analysis plan, and the quantity and approximate location where crushed concrete subject to this approval is placed in Plant 2 tunnels. Boeing will ensure that these records are made available to EPA upon request.

This condition establishes interim authorization for cleanup of PCBs with as-found concentrations less than 50 ppm which may meet the definition of PCB remediation waste. This condition also establishes the disposal requirements for the crushed concrete, including sampling and analysis of the crushed concrete placed in the Plant 2 tunnels. EPA will use the results of this sampling and analysis as the basis in part for establishing engineering and institutional controls, and environmental monitoring requirements, following completion of demolition, crushing and placement of foundation concrete. As noted in the Statement of Basis section "Cleanup of PCBs At As-found Concentrations <50 ppm" above, EPA is authorizing the Plant 2 tunnels as a "unit," as defined in 40 C.F.R. 761.3 solely for disposal of PCB remediation waste with as-found concentrations less than 50 ppm that are subject to this approval. EPA is not establishing any authorization for the Plant 2 tunnels as a chemical waste landfill, or for disposal of any PCBs other than those specifically identified in this approval.

EPA is including a record keeping requirement to ensure documentation of sampling and analysis is available to EPA, as well as documentation of compliance with the 19 ppm industrial TMCL for PCBs discussed in the Statement of Basis.

3. Concurrent with the submission to EPA of the Plant 2 Corrective Measures Study (CMS) Report associated with the existing Resource Conservation and Recovery Act (RCRA) Administrative Order for Plant 2, Boeing with provide a copy of this report to EPA according to Condition 11. The CMS report will contain specifications and requirements for all engineering and institutional controls necessary to ensure that PCBs remaining on-site do not pose an unreasonable risk of injury to health and the environment, along with the placement locations and analytical results for the concrete backfill. Boeing will also provided EPA a copy of the Interim Measures Completion Report documented in Section 3.0 of Reference 8.

This condition requires Boeing to provide EPA with documentation that will support EPA's selection of the final soils corrective measures at Plant 2. EPA will use this information to modify this Approval to finalize cleanup approval for PCBs in foundation concrete with as-found concentrations less than 50 ppm, including engineering and institutional controls, and environmental monitoring necessary to ensure satisfaction of the TSCA no unreasonable risk standard.

4. This approval will remain in effect for a period of two years following the most recent approval or modification signature date, or the duration of the authorized activities, whichever is shorter. Boeing may request an extension to this authorization by providing a written request to EPA according to Condition 11.

This condition establishes a maximum time period during which cleanup and storage for disposal may occur. Boeing's RBDA application states that the activities under this approval are expected to take 18 months to complete. To reasonably accommodate some delays which may be encountered in conducting this work, EPA is allowing some additional time to complete the work. To accommodate the expected series of revisions to this RBDA approval, EPA is

clarifying that the signature date is that of the latest approval or medication, not the original signature date.

5. In conducting demolition activities authorized by this approval, Boeing shall ensure that effective controls are in place to prevent or minimize airborne dispersal of concrete or other material contaminated with PCBs. These controls may include temporary enclosures, or water sprays or mists. If water sprays or mists are used, the quantity of water shall be the minimum required for effective dust control, and shall be applied in a manner that minimizes or prevents the accumulation of liquids, run-off or infiltration into underlying soils.

This condition ensures that sources of air emissions which may be reasonably expected from the demolition work under this approval, and which could result in human or environmental exposures to PCBs are appropriately controlled or mitigated. Since the appropriate controls may vary among the various features to be demolished under this approval, EPA is establishing general performance requirements for these controls.

6. Boeing will ensure that lined roll-off boxes or other containers in which PCB remediation waste is placed under this approval will have liners adequate to prevent any incidental liquids from leaking from the boxes or containers. Roll-off boxes containing PCB remediation waste must be covered with a tarpaulin or other suitable cover to prevent potential air dispersal except when adding PCB remediation waste to a roll-off box. Storage for disposal of bulk PCB remediation waste must occur within the footprint of the 2-40s and 2-60s Areas.

This condition ensures that storage for disposal of bulk PCB remediation waste is conducted in a manner that minimizes releases of incidental liquids and dust to the extent necessary to ensure no unreasonable risk of injury to health or the environment. EPA is not establishing a requirement for secondary containment, since roll-off boxes are expected to remain on-site for a relatively short period of time. EPA is requiring storage to occur only within areas associated with the demolition to ensure that even the small chance of spills or releases from roll-off boxes will not result in the spread of PCB contamination.

7. Except for incidental liquids and water associated with control of air dispersal of concrete or other material contaminated with PCBs, any liquids in contact with or associated with PCBs being removed pursuant to this approval must be collected, placed in containers meeting applicable Department of Transportation requirements at 49 C.F.R. Part 178, and managed according to applicable requirements of 40 C.F.R. Part 761.

Boeing's RBDA does not propose to mange liquid PCB remediation waste. However, several of the features that will be cleaned up under this approval have, or may contain, liquids in contact with PCBs regulated for disposal. This condition ensures that if such liquids are encountered, they are appropriate collected, packaged and managed.

8. Boeing will ensure that the health and safety plan discussed in Section 4.0 of Reference 1 documents appropriate training and personal protective equipment required for all personnel that may be exposed to PCBs during demolition activities under this approval. Boeing will provide the EPA a copy of this health and safety plan according to Condition 11 no later than two weeks prior to the start of demolition activities.

Boeing's RBDA application does not include a health and safety plan, and it does not discuss any training requirements for personnel conducting work under this approval. Both are important to ensure that work is conducted safely and in a manner that does not pose an

unreasonable risk of injury to health or the environment. This condition ensures that a health and safety plan is prepared and that it includes elements that the EPA considers necessary. The EPA is not including an explicit requirement for EPA's review and approval, but this condition does ensure that the EPA has access to the plan. If the EPA should identify deficiencies that require revision, the EPA may establish necessary revisions through modification of this approval pursuant to Condition 10.

9. Nothing in this approval relieves The Boeing Company of any obligation to comply with other rules and regulations applicable to the activities subject to this approval.

This condition establishes that this approval under TSCA does not relieve Boeing of any other obligation that it may have with respect to the approved activities.

10. If at any time before, during, or after storage of PCB remediation waste pursuant to this approval, Boeing possesses or is otherwise made aware of any data or information (including but not limited to site conditions that differ from those presented in the application) that activities approved herein may pose an unreasonable risk of injury to health or the environment, Boeing must report such data or information via facsimile or e-mail to EPA according to Condition 11 within five working days, and in writing to the Regional Administrator within 30 calendar days of first possessing or being made aware of such data or information. Boeing shall also report in the same manner, new or different information related to a condition or any element of the approved storage activities if the information is relevant to this approval. EPA may direct Boeing to take such actions it finds necessary to ensure the approved storage activities do not pose an unreasonable risk of injury to health or the environment. Boeing shall follow such direction until written approval is obtained from the EPA that finds the condition(s) requiring such direction no longer poses an unreasonable risk of injury to health or the environment. EPA reserves the right to modify or revoke this approval based on information provided pursuant to this condition, or any other information available to EPA that provides a basis to conclude that activities covered by this approval pose an unreasonable risk of injury to health or the environment.

This condition ensures that if any information not available to EPA at the time this approval is issued becomes known, and it will be made available to the EPA for purposes of ensuring that activities subject to this approval continue to pose no unreasonable risk of injury to health or the environment. This condition also ensures EPA's ability to make changes to the storage activities, including withdrawing approval for storage, as necessary to ensure no unreasonable risk of injury to health or the environment.

11. Submissions required by this approval shall be provided to EPA as follows:

EPA:	Edward J. Kowalski, Director Office of Compliance and Enforcement EPA Region 10 1200 6th Ave., Suite 900, MS OCE-164 Seattle, Washington 98101 E-mail: Kowalski.edward@epa.gov Facsimile: (206) 553-7176
w/copies to	Dave Bartus

Office of Air, Waste and Toxics
EPA Region 10
1200 6th Avenue, Suite 900, MS AWT-122
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